PR4

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,015	11/05/1999	FAN JIAO	50325-081	4659

29989   7590   08/14/2003

HICKMAN PALERMO TRUONG & BECKER, LLP
1600 WILLOW STREET
SAN JOSE, CA 95125

EXAMINER
ALI, AHMEDUR R

ART UNIT	PAPER NUMBER
2131	6

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

P/4

Office Action Summary	**Application No.** ⬤	**Applicant(s)**
	09/435,015	JIAO, FAN
	Examiner	**Art Unit**	
	Ahmedur Ali	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>05 November 1999</u> .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>05 November 1999</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

     a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

U.S. Patent and Trademark Office
PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 2

DETAILED ACTION

1.   The application has been examined. Claims 1-20 are pending in this Office

Action.

Specification

2.   Applicant is reminded of the proper language and format for an abstract of the
disclosure.

The abstract should be in narrative form and generally limited to a single
paragraph on a separate sheet within the range of 50 to 150 words. It is important that
the abstract not exceed 150 words in length since the space provided for the abstract
on the computer tape used by the printer is limited. The form and legal phraseology
often used in patent claims, such as "means" and "said," should be avoided. The
abstract should describe the disclosure sufficiently to assist readers in deciding whether
there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information
given in the title. It should avoid using phrases which can be implied, such as, "The
disclosure concerns," "The disclosure defined by this invention," "The disclosure
describes," etc.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-5, 7-10, and 15-17, and 20 are rejected under 35 U.S.C. 102(e) as

being anticipated by Bernhard et al. U.S. Patent No. 6,275,942 ('Bernhard' hereinafter).

5.   With respect to claim 1, Bernhard teach a directory-enabled network element

(see abstract; col. 9, lines 59-67 to col. 10, lines 1-61).

6.   Bernhard teach claim 2 rejected as above rejecting claim 1, further comprising a

directory enabling element installed in an executed by the network element, and

configured to query, access, and update directory information that is managed by a

directory service of a network that includes the network element (see col. 9, lines 59-67

to col. 10, lines 1-61; col. 11, lines 66-67 to col. 12, lines 1-41).

7.   Bernhard teach claim 3 rejected as above in rejecting claim 2, further comprising

an application programming interface coupled to the directory enabling element and

configured to receive directory services requests from application programs and provide

the directory services requests to the directory enabling element (see col. 4, lines 11-39;

col. 10, lines 20-61; col. 15, lines 24-67 to col. 16, lines 1-43).

8.   Referring to claim 4, Bernhard disclose a directory-enabled network comprising:

a directory enabling element installed in and executed by the network element,

and configured to query, access, and update directory information that is managed by a

directory service of a network that includes the network element (see col. 11, lines 66-

67 to col. 12, lines 1-41);

an application programming interface coupled to the directory enabling element

and configured to receive directory services requests from application programs and

provide the directory services requests to the directory enabling element.

a locator service coupled to the directory enabling element and accessible using

the application programming interface and configured to locate servers that provide the

directory services in the network (see col. 4, lines 11-29; col. 10, lines 20-61; col. 15,

lines 24-67 to col. 16, lines 1-43).

9.   Bernard teach claim 5 rejected as above in rejecting claim 2, further comprising a

bind service in the directory enabling element and coupled to a security protocol and

configured to bind an external application program to the security protocol (see col. 4,

lines 12-48; col. 11, lines 9-33).

10.   Bernhard teach claim 7 rejected as above in rejecting claim 2, further comprising:

a locator service coupled to the directory enabling element and configured to

locate servers that provide the directory services in the network (see col. 4, lines 11-39;

col. 10, lines 20-61; col. 15, lines 24-67 to col. 16, lines 1-43);

an event service coupled to the directory enabling element and configured to

receive registration of an event and an associated responsive action from an application

program, notify the application program when the event occurs, and execute the

associated responsive action in response thereto (see col. 4, lines 11-39; col. 10, lines

20-61; col. 15,lines 24-67 to col. 16, lines 1-43).

11.   Bernhard teach claim 8 rejected as above in rejecting claim 4, further comprising:

a locator service coupled to the directory enabling element and configured to

locate servers that provide the directory services in the network (see col. 4, lines 11-39;

col. 10, lines 20-61; col. 15, lines 24-67 to col. 16, lines 1-43);

an event service coupled to the directory enabling element and configured to

receive registration of an event and an associated responsive action from an application

program, notify the application program when the event occurs, and execute the

associated responsive action in response thereto (see col. 4, lines 11-39; col. 10, lines

20-61; col. 15,lines 24-67 to col. 16, lines 1-43).

12.   Bernhard teach claim 9 rejected as above in rejecting claim 2, further comprising:

a locator service coupled to the directory enabling element and configured to

locate servers that provide the directory services in the network (see col. 4, lines 11-39;

col. 10, lines 20-61; col. 15, lines 24-67 to col. 16, lines 1-43);

a group policy interface coupled to the directory enabling element and configured

to receive and update the directory service with one or more definitions of directory

services policies that apply to groups of network devices in the network (see col. 12,

lines 7-42).

13.   Bernhard teach claim 10 rejected as above in rejecting claim 5, further

comprising:

an event service coupled to the directory enabling element and accessible using

the application programming interface and configured to receive registration of an event

and an associated responsive action from an application program, notify the application

program when the event occurs, and execute the associated responsive action in

response thereto (see col. 4, lines 11-39; col. 10, lines 20-61; col. 15,lines 24-67 to col.

16, lines 1-43).

14.   With respect to claim 15, Bernhard teach a method of using a directory-enabled

network element to query, access, or update directory information of a directory service

of a network that includes the directory-enabled network element, wherein the directory-

enabled network element comprises a directory enabling element installed in and

executed by the network element, and configured to query, access, and update

directory information that is managed by a directory service of a network that includes

the network element (see abstract; col. 9, lines 59-67 to col. 10, lines 1-61; col. 11, lines

66-67 to col. 12, lines 1-41); the method comprising the steps of:

binding the application program to the security protocol (see col. 4, lines 12-48;

col. 11, lines 9-33);

creating an event and an associated responsive action that are associated with

the application program (see col. 15, lines 24-62);

in response to occurrence of the event, executing the responsive action,

obtaining policy information from the directory service, and converting the policy

information into one or more commands that are executable by the directory-enabled

network element (see col. 13, lines 20-67 to col.14, lines 1-6).

15.   With respect to claim 16, Bernhard teach a computer-readable medium carrying

one or more sequences of instructions for using a directory-enabled network element to

query, access, or update directory information of a directory service of a network that

includes the directory-enabled network element (see col. 9, lines 59-67; col. 11, lines

66-67 to col. 12, lines 1-41; col. 15, lines 24-67 to col. 16, lines 1-43), wherein execution

of the one or more sequences of instructions by one or more processors causes the one

or more processors to perform the steps of:

        creating and storing a directory enabling element installed in and executed by the

network element, and configured to query, access, and update directory information that

is managed by a directory service of a network that includes the network element (see

col. 9, lines 59-67; col. 11, lines 66-67 to col. 12, lines 1-41; col. 15, lines 24-67 to col.

16, lines 1-43).

        binding the application program to the security protocol (see col. 4, lines 1-48;

col. 11, lines 9-33);

        creating an even and an associated responsive action that are associated with

the application program (see col. 15, lines 24-62);

        in response to occurrence of the event, executing the responsive action,

obtaining policy information from the directory service, and converting the policy

information into one or more commands that are executable by the directory enabled

network element (see col. 13, lines 20-67 to col.14, lines 1-6).

16.   Bernhard teach claim 17 rejected as above in rejecting claim 16, further

performing the steps of:

locating a nearest directory server and binding the application program to the

nearest directory server that is located (see col. 4, lines 12-39; col. 5, lines 8-24);

locating a nearest event server and binding the application program to the

nearest event server that is located (see col. 5, lines 8-24; col. 15, lines 24-67 to col. 16,

lines 1-41).

17.   Bernhard teach claim 20 rejected as above in rejecting claim 16, further wherein

execution of the one or more sequences of instructions by one or more processors

causes the one or more processors to perform the further steps of establishing an

application programming interface coupled to the directory enabling element and

configured to receive directory services requests from application programs and provide

the directory services requests to the one or more processors (see col. 6, lines 9-54;

col. 12, lines 43-67 to col. 13, lines 1-6; col. 15, lines 52-67 to col. 16, lines 1-43).

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

19.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernhard

et al. U.S. Patent No. 6,275,942 ('Bernhard' hereinafter) in view of Day, II et al. U.S.

Patent No. 5,968,116 ('Day, II' hereinafter).

20.   Bernhard teach claim 6 rejected as above in rejecting claim 2.

Bernhard does not explicitly disclose a Unicode translation service configured to

query, access, and update directory information that is encoded in a Unicode

international character format.

Day, II teach a Unicode translation service configured to query, access, and

update directory information that is encoded in a Unicode international character format

(see col. 6, lines 13-31).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of Day, II within the system of Bernhard

because both references are directed to a directory-enabled network element, and

because the implementation of the Unicode translation service of Day, II in Bernhard

would allow for the data within the directory to be effectively transported through the

network without corruption, further improving the reliability of the directory information

that is encoded in a Unicode international character format.

21.   Claims 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,400,707 issued to Baum et al. ('Baum' hereinafter).

22.   With respect to claim 11, Baum teach a directory-enabled packet router for a

packet-switched network (see col. 3, lines 48-64).

23.   Baum teach claim 12 rejected as above in rejecting claim 11, further comprising:

a directory enabling element installed in and executed by the router, and

configured to query, access, and update directory information that is managed by a

directory service of a network that include the router (see col. 3, lines 48-67 to col. 4,

lines 1-14);

a bind service in the directory enabling element and coupled to a security

protocol and configured to bind an application program to the security protocol (see col.

3, lines 48-67, col. 4, lines 1-63; co. 6, lines 66-67 to col. 7, lines 1-24);

an event service coupled to the directory enabling element and accessible using

the application programming interface and configured to receive registration of an event

and an associated responsive action from an application program, notify the application

program when the even occurs, and execute the associated responsive action in

response thereto (see col. 7, lines 25-64).

24.   With respect to claim 13, Baum teach a directory-enabled network data switch for

a packet-switched network (see abstract; col. 2, lines 60-67 to col. 3, lines 1-12, 41-64).

25.   Baum teach claim 14 rejected as above in rejecting claim 13, further comprising:

a directory enabling element installed in and executed by the switch, and

configured to query, access, and update directory information that is managed by a

directory service of a network that includes the switch (see col. 3, lines 48-67 to col. 4,

lines 1-14);

a bind service in the directory enabling element and coupled to a security

protocol and configured to bind an application program to the security protocol (see col.

3, lines 48-67 to col. 4, lines 1-63; col. 6, lines 66-67 to col. 7, lines 1-24);

an event service coupled to the directory enabling element and accessible using

the application programming interface and configured to receive registration of an event

and an associated responsive action from an application program, notify the application

program when the event occurs, and execute the associated responsive action in

response thereto (see col. 7, lines 25-64).

26.   Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bernhard et al. U.S. Patent No. 6,275,942 ('Bernhard' hereinafter) in view of Nessett et

al. U.S. Patent No. 5,968,176 ('Nessett' hereinafter).

27.   Bernhard teach claim 18 rejected as above in rejecting claim 16.

Bernhard does not explicitly disclose a virtual private network is created between

the router and another network device.

Nessett teach translating the policy information into one or more values that are

ready to apply to a router, whereby a virtual private network is created between the

router and another network device (see col. 14, lines 31-47; col. 15, lines 6-67).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of Nessett within the system of Bernhard

to arrive at the invention as claimed because both references are directed to a

computer-readable medium, and because the implementation of virtual private network

would increase the level of protection of the packets that are moved between the source

and destination, further preserving the integrity of the data within the directory-enabled

network element.

28.   Bernhard teach claim 19 rejected as above in rejecting claim 16.

Bernhard does not explicitly disclose a set of internal data structures of a router

and a dynamic IPSEC configuration.

Nessett teach translating the policy information into one or more values that are

ready to apply to a set of internal data structures of a router, by calling one or more

internal NOS API functions, whereby a dynamic IPSEC configuration is created that

connects the router and at least one other network device (see col. 10, lines 24-59; col.

13, lines 51-67 to col. 14, lines 1-51).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of Nessett within the system of Bernhard

to arrive at the invention as claimed because both references are directed to a

computer-readable medium, and because the implementation of IPSEC configuration

would increase the level of protection of the communication that occurs between the

router and one other network device, effectively ensuring the secure packet exchanges

at the IP layer, and further improving the security of the communication interface of the

combined system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dugan et al. (U.S. Patent No. 6,275,942) disclose a telecommunications switching network.

Ganguly et al. (U.S. Patent No. 6,345,266) disclose a distributed directory service that is constructed based on a predicate, i.e., a query from a client.

Lidnisky et al. (U.S. Patent No. 4,897,874) disclose a metropolitan area network arrangement for serving virtual data networks.

Day, II (U.S. Patent No. 6,430,596) disclose a network management service for facilitating the management of networked devices by network management applications.

Coley et al. (U.S. Patent No. 6,061,798) teach a firewall system for protecting network elements connected to a public network.

Coley et al. (U.S. Patent No. 5,826,014) teach a firewall system for protecting network elements connected to a public network.

He (U.S. Patent No. 5,944,824) teach a system and method for single sign-on to a plurality of network elements.

Day II (U.S. Patent Pub. No. 202/0046260) discloses a network management service for facilitating the management of networked devices by network management applications.

Moses et al. (U.S. Patent No. 6,499,110) disclose a method and apparatus for facilitating information security policy control on a per security engine user basis.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ahmedur Ali whose telephone number is 305-4667. The

examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 305-9648. The fax phone numbers for the

organization where this application or proceeding is assigned are 305-3718 for regular

communications and 305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 305-3900.

ara
August 11, 2003

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100